

**R E M A R K S**

Enclosed is a REQUEST FOR INITIALED COPY OF FORM PTO/SB/08A concerning applicants' INFORMATION DISCLOSURE STATEMENT dated April 26, 2002.

Pages 2 and 4 of the specification were amended to correct minor clerical errors.

The term "skin beautification" that was included in the claims is supported in the specification in the second paragraph on page 1 (Field of the Invention) and the fourth full paragraph on page 4.

New claims 16 and 17 include the feature of original claim 2.

New claims 18 and 19 include the feature of original claim 3.

New claims 20 and 21 include the feature of original claims 1, 4 and 5.

New claims 22 and 23 are supported in the specification on page 3, lines 22 to 25.

New claims 24 and 25 are supported in the penultimate paragraph on page 7 of the application.

Claims 1 to 15 were rejected under 35 USC 112, second paragraph for the reasons set forth on pages 2 to 3 of the Office Action.

The claims were amended to avoid the 35 USC 112, second paragraph rejection.

It is respectfully submitted that the present claims comply with all the requirements of 35 USC 112.

Claims 1, 4 and 5 were provisionally rejected under the judicially created doctrine of double patenting as being unpatentable over claims 11 and 22 of application Serial No. 09/558,487.

There is an outstanding Office Action in application Serial No. 09/558,487, which will not be responded to. Application Serial No. 09/558,487 will then abandon for failure to prosecute and the double patenting rejection will be moot.

Claims 1 to 3 and 7 to 9 were rejected under 35 USC 102 as being anticipated by Burton et al. USP 5,217,962 for the reasons set forth on page 4 of the Office Action.

Initially it is noted that this rejection is moot in view of the present claims.

Burton et al. USP 5,217,962 relate to a method and a composition for treating psoriasis. Burton et al. do not teach or suggest the method of the present invention, i.e., "A method of skin beautification for a human."

Burton et al. do not disclose the use of N-acetylglucosamine with chitinoligosaccharide as recited in applicants' Claim 4 or the use of N-acetylglucosamine with a collagen peptide as recited in applicants' claim 5.

Claims 1 to 3 and 9 were rejected under 35 USC 102 as being anticipated by Murad USP 5,804,594 for the reasons set forth on page 5 of the Office Action.

Initially, it is noted that this rejection is moot in view of the present claims.

Murad USP 5,804,594 does not disclose the use of N-acetylglucosamine with chitinoligosaccharide as recited in applicants' Claim 4, or the use of N-acetylglucosamine with a collagen peptide as recited in applicants' claim 5.

Claims 1 to 15 were rejected under 35 USC 103 as being unpatentable over Burton et al. in view of Matsuura et al.

JP01268618 taken together with Haynes et al. USP 5,998,173 for the reasons set forth on pages 6 to 9 of the Office Action.

Burton et al. was discussed above.

It was admitted in the Office Action that Burton et al. do not teach chitinoligosaccharide. Additionally, as discussed above, Burton et al. do not disclose the combination of N-acetylglucosamine ("NAG") and a chitinoligosaccharide as recited in applicants' claim 4 or the combination of chitinoligosaccharide and a collagen peptide as recited in applicants' claim 5.

The following was stated on page 7 of the Office Action:

"...the primary reference [Burton et al.] lacks the chitin oligosaccharide... Matsuura et al. teach a cosmetic composition containing a chitin oligosaccharide for imparting remarkable softening and humectant effects to the skin or hair... It would have been obvious to one having ordinary skill in the art to have modified the methods of skin treatment as taught by Burton et al. by adding a chitin oligosaccharide as taught by Matsuura et al..."

However, Matsuura et al. relate to a cosmetic composition such as a lotion, an emulsion, a pack or a cream. It is respectfully submitted that one of ordinary skill in the art

would not consider to combine the Matsuura et al. topical composition with the composition for psoriasis of Burton et al., which is orally administered.

Haynes et al. describe only a process for producing N-acetyl-D-glucosamine.

The Office Action does not provide any explanation why it would be obvious to one of ordinary skill in the art to use NAG with a collagen peptide (see applicants' claim 5).

Applicants have informed the undersigned that a collagen peptide shows a higher absorptivity in the human body than collagen. Further, a collagen peptide shows higher solubility in water than collagen, and provides a low viscosity when dissolved in water, and can thereby be easily incorporated in foods. If collagen is added to a drink, even in an amount of only 1%, the viscosity is increased and one's tongue will feel a bad viscous texture. Further, if collagen is added in an amount of 2%, the drink will be gelled and cannot be used.

In contrast to the use of collagen, if collagen peptide is added in an amount of 5%, the viscosity will be maintained at

such a low level that it will not cause a difficulty to be utilized in a beverage.

Further, the collagen peptide as recited in applicants' claim 6 is originated from fish, whereby its absorptivity into the human body is higher than collagen which is originated from the meat of livestock. Moreover, a collagen peptide originating from fish contains a low content of amino acid, whereby the flavor of fish is hardly noticeable and, also, the arsenic content is low. Accordingly, the collagen peptide can easily be incorporated into foods.

Still further, by combining N-acetylglucosamine (NAG) and collagen peptide, synergistic skin beautification results can be obtained for the following reasons which were provided by the applicants.

It is known that for human skin, hyaluronic acid as an extracellular matrix tends to decrease with aging. It is considered that orally administering NAG as a material of hyaluronic acid accelerates the formation of hyaluronic acid, and improves the moisture of the skin.

On the other hand, it is considered that orally administered collagen peptide supplies collagen content as an extracellular

matrix, and improves the moisture of the skin. And, it is estimated that the collagen in the skin has not only the above effect, but also an effect of preventing the destruction of hyaluronic acid due to ultraviolet rays and stress by oxidation.

Accordingly, when NAG and collagen peptide are orally ingested in combination, hyaluronic acid can be protected physically and chemically by the collagen and, at the same time, the formation of hyaluronic acid can be accelerated by NAG, in the skin.

Applicants have informed the undersigned that their invention as defined in Claim 4 provides not only an effect for promoting skin beautification, but also provide a proliferation of Bifidobacterium physiological active effect such as an immunoregulation function by chitin oligosaccharide.

It is therefore respectfully submitted that applicants' claimed invention is not anticipated and is not rendered obvious over the references, either singly or combined in the manner relied upon in the Office Action in view of the distinctions discussed hereinabove. It is furthermore submitted that there are no teachings in the references to combine them in the manner relied upon in the Office Action.

Reconsideration is requested. Allowance is solicited.

Appl. No. 10/076,686

Response to Office Action mailed April 18, 2003

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

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Respectfully submitted,



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Encs.: (1) PETITION FOR EXTENSION OF TIME  
(2) REQUEST FOR INITIALED COPY OF FORM PTO/SB/08A